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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Rami Vahtinen

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EXAMINER

LAEKEMARIAM, YOSEF K

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,407	Applicant(s) VAITTINEN ET AL.	
	Examiner YOSEF K. LAEKEMARIAM	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/16/2004, 08/04/2005, 10/16/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen et al. (6,714, 781) in view of Ko et al. (US 2006/0227754)

Regarding claim 1, Pecen discloses a method in a wireless communication system for a mobile terminal to transition to a dual mode, in which a packet switched connection and circuit switched connection are used together (Col.3 lines 10-38), from a single mode in which packets are transferred (abstract lines 3-9 and Col.2 lines 14-17; Pecen discusses message that originates from the packet-switched domain, i.e. packets transferred from a single mode), maintaining packet switched resources (Col.2 lines 62-67 and Col.4 lines 10-16), and receiving a dual transfer mode assignment message as a result of using the packet associated channel to convey the radio link control or multiple access control message (Col.1 lines 16-27).

Pecen discloses the invention set forth above except for the claimed step of “using a packet associated control channel to convey a radio link control or multiple access control message ”

Ko discloses the steps of using a packet associated control channel to convey a radio link control or multiple access control message (Paragraphs: 0007-0008 and 0097).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Pecen, and utilize a packet associated control channel to convey a radio link control or multiple access control message as taught by Ko, thus allowing more efficient method to of wireless communication system to convey a radio link control using a packet associated control channel, as discussed by Ko.

Regarding claim 15, Pecen discloses a mobile terminal for transitioning in a wireless communication system to a dual mode wherein a packet switched connection and circuit switched connection are used together (Col.3 lines 10-38), from a single mode wherein packets are transferred (abstract lines 3-9 and Col.2 lines 14-17; Pecen discloses message that originates from the packet-switched domain, i.e. packets transferred from a single mode), and a processing unit, for receiving a dual transfer mode assignment message via the transceiver (Col.4 lines 3-16 and fig.1, 118, 120) as a result of the radio link or multiple access control message (Col.3 lines 57-67, Col.4 lines 1-12 and Col.5 lines 28-38), wherein the mobile terminal is arranged to maintain the packet switched connection while the radio link or multiple access control message is conveyed and the dual transfer mode assignment message is received (abstract lines 1-9 and Col.5 lines 39-44).

Pecen discloses the invention set forth above except for the claimed “transceiver for using a packet associated control channel to convey a radio link control or multiple access control message ”

Ko discloses a transceiver for using a packet associated control channel to convey a radio link control or multiple access control message (Paragraphs: 0007-0008 and 0097).

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Regarding claim 27, Pecen discloses a system for transitioning in a wireless communication system to a dual mode wherein a packet switched connection and circuit switched connection are used together (Col.3 lines 10-38), from a single mode wherein packets are transferred (abstract lines 3-9 and Col.2 lines 14-17; Pecen discusses message that originates from the packet-switched domain, i.e. packets transferred from a single mode), and a base station, for providing to the mobile terminal a dual transfer mode assignment message (abstract lines 3-9), as a result of using the packet associated channel to convey the radio link or multiple access control message (Col.3 lines 57-67, Col.4 lines 1-12 and Col.5 lines 28-38), wherein the base station is also for providing to the mobile terminal uninterrupted packet switched resources (Col.2 lines 1-13, Col.2 lines 51-67 and Col.4 lines 3-16).

Pecen discloses the invention set forth above except for the claimed “a mobile terminal, for processing a radio link control or multiple access control message that is conveyed by a packet associated control channel”

Ko discloses a mobile terminal, for processing (Paragraph: 0027) a radio link control or multiple access control message that is conveyed by a packet associated control channel (Paragraphs: 0007-0008 and 0097)

Considering claims 2 and 18, Pecen and Ko together discloses the method of claims 1 and 15, Pecen further discloses the radio link control or multiple access control message is from the mobile terminal to a network in order to request the circuit switched connection (Col.6 lines 21-26), and wherein the dual transfer mode assignment message is from the network to the mobile terminal in order to initiate establishment of the circuit switched connection and allocate resources (Col.5 lines 24-38).

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Considering claims 3 and 29, Pecen and Ko together discloses the method of claims 1 and 27, Ko further discloses the dual transfer mode assignment message is conveyed by the radio link or multiple access control message from a network to the mobile terminal (Paragraphs: 0007-0008 and 0097).

Considering claims 4, 19 and 30, Pecen and Ko together discloses the method of claims 1, 15 and 27, Pecen further discloses the dual mode corresponds to a Class-A mode, and the single mode corresponds to a Class-B or Class-C mode (Col.1 lines 28-46).

Considering claims 5 and 20, Pecen and Ko together discloses the method of claims 1 and 20, Pecen further discloses the maintaining step precludes idling packet resources (Col.4 lines 6-11).

Considering claims 6 and 21 Pecen and Ko together discloses the method of claims 2 and 21, Ko further discloses wherein the radio link control or multiple access control message encapsulates at least one radio resource control message, or an additional radio link control or multiple access control message is introduced for each reply from the network (Paragraph: 0007 and 0022).

Considering claims 7 and 22 Pecen and Ko together discloses the method of claims 6 and 22, Ko further discloses the radio link control or multiple access control message is a packet CS command message (Paragraph: 0007).

Considering claims 8 and 23, Pecen and Ko together discloses the method of claims 6 and 21, Ko further discloses the radio link or multiple access control message is in response to paging by the network (Paragraph: 0022 and fig.12).

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Considering claims 9 and 24 Pecen and Ko together discloses the method of claims 6 and 21, Pecen further discloses the radio link or multiple access control message includes a packet circuit switch request (Col.1 lines 16-20)

Considering claims 10 and 25, Pecen and Ko together discloses the method of claims 6 and 21, Ko further discloses the mobile terminal makes a plurality of attempts to send the radio link or multiple access control message, the mobile terminal starts a timer after the plurality of attempts, and if the timer expires then packet resources are released (Paragraphs: 0062 and 0078).

Considering claims 11, Pecen and Ko together discloses the method of claim 6, Pecen further discloses if the network cannot allocate packet switched resources then packet resources are released (Col.2 lines 8-13).

Considering claim 12, Pecen and Ko together discloses the method of claim 6, Pecen further discloses if the network cannot allocate circuit switched resources the mobile terminal continues in packet transfer mode only (Fig.2, 132).

Considering claims 13 and 26, Pecen and Ko together discloses the method of claims 3 and 21, Pecen further discloses the dual transfer mode assignment message or an immediate assignment message includes an indication of being sent instead of a packet paging request message (Col.4 lines 59-61).

Considering claim 14, Pecen and Ko together discloses a computer readable medium encoded with a software data structure sufficient for performing the method of claim 1 (Paragraph: 0054).

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Considering claim 16, Pecen and Ko together discloses the mobile terminal of claim 15, Pecen further comprising: a packet switch device, for processing and passing an uninterrupted data signal between the processing unit and the transceiver; and a circuit switch device, for processing and passing a voice signal between the processing unit and the transceiver, the voice signal being initiated after the dual transfer mode assignment message is received (Fig.1, 118, 120).

Considering claim 17, Pecen and Ko together discloses the mobile terminal of claim 15, Pecen further discloses the radio link or multiple access control message is transmitted by the transceiver, in order to request the circuit switched connection (Col.2 lines 40-50).

Considering claim 28, Pecen and Ko together discloses the system of claim 27, Pecen further discloses the radio link or multiple access control message is from the mobile terminal to the base station (Col.2 lines 62-67 and fig.1, 106, 108, 116).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF K. LAEKEMARIAM whose telephone number is (571) 270-5149. The examiner can normally be reached on Regular hours 8:30am-5:30pm M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AHMAD MATAR can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YOSEF K LAEKEMARIAM/
Examiner, Art Unit 2614

/Ahmad F. Matar/
Supervisory Patent Examiner, Art Unit 2614